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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,832	09/29/2003	Gary L. Peresada	3135-26	4472
7590	10/18/2004			
Russel H. Marvin Torrington Research Company 89 Commercial Boulevard Torrington, CT 06790			EXAMINER SCHATZ, CHRISTOPHER	
			ART UNIT 1733	PAPER NUMBER

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,832

Applicant(s)

PERESADA ET AL.

Examiner

Christopher T Schatz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 9-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 8 is/are rejected.
- 7) ☒ Claim(s) 2-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following claims is required under 35 U.S.C. 121:
 - I. Claims 1-8, drawn to a method of assembling magnetic segments on the interior of a cylindrical back ring, classified in class 156, subclass 293.
 - II. Claims 9-18, drawn to an apparatus for assembling magnetic segments on the interior of a cylindrical back ring, classified in class 156, subclass 349.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. In the instant case the process can be practiced manually as indicated in the applicants specification.

Because these inventions are distinct for the reasons given above and the search for Group 1 is not required for Group II and vice versa, restriction for examination purposes as indicated is proper.

During a conversation with the applicant on September 15, 2004, an election was made with traverse to prosecute the invention of Group I, claims 1-8. Affirmation of this election must be made by applicant in replying to this office action. Claims 9-18 are withdrawn from consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noguchi et al. '471 in view of Phelon '850. Noguchi et al. discloses a method of assembling a plurality of magnetic segments 26 on the interior surface of a cylindrical back ring 28 for incorporation in a magnetic motor, said method comprising of

releasably securing magnetic segments 26 on the exterior 124 of an expandable and contractible fixture 36 in a circumaxially spaced arrangement (figure 4) (column 5, lines 30-33);

effecting relative axially movement between said fixture and said segments and an axially aligned cylindrical back ring 28 to insert said fixture into said cylindrical back ring (column 4, lines 2-9);

expanding said fixture to press said magnetic segments into engagement with said cylindrical back ring such that said segments bond to the interior of said back ring (column 1, lines 66-67, and column 2, lines 1-5); and

contacting said fixture and consequently removing said fixture from the interior of said cylindrical ring (column 2, lines 9-12).

Noguchi et al. does not explicitly disclose a means for sequentially applying an adhesive to the magnetic segments. Phelon discloses a method of manufacturing a magnetic motor wherein an adhesive tape 17 is applied to the outer surface of magnetic segments 12 such that said magnetic segments can be bonded to the interior surface of a cylindrical ring 14.

The application of said adhesive is advantageous because the adhesive provides for a stronger bond between the cylindrical back ring and the magnetic segments, thus reducing the risk of separation during the operation of the magnetic motor.

Noguchi et al. and Phelon are analogous art because they are from the same field of endeavor: the manufacture of magnetic motors. Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to apply said adhesive to said outer surface of said magnetic segments as taught by Phelon for the reasons stated above in the process of making a magnetic motor as set forth above by Noguchi et al.

2. Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Noguchi et al. in view of Phelon, as applied to claim 1 above, and in further view of Aoshima (US-2002/0047334 A1). Noguchi et al. and Phelon disclose a method as stated in claim 1, but the references fail to disclose a method wherein a cylindrical back ring is subjected to an injection molding process. Aoshima discloses a method of manufacturing a magnetic motor wherein a cylindrical back ring 2 is subjected to an injection molding process (paragraph 0051-0053). The addition of the injection molding process is advantageous because, as disclosed by Aoshima, doing so increases the bending strength of the magnetic motor and hence increases its performance (paragraph 0052). Noguchi et al., Phelon, and Aoshima are all analogous art because they are from the same field of endeavor: the manufacture of magnetic motors.

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Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to add the injection molding process for the reasons disclosed by Aoshima above in the process of making a magnetic motor as set forth above by Noguchi et al and Phelon.

Allowable Subject Matter

Claims 2-7 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of the reasons for the indication of allowable subject matter: The prior art does not state that the fixture is rotated relative to the adhesive applying means such that said adhesive is sequentially applied to magnetic segments.

Claims 3-7 are considered allowable subject material as a result of being dependent on claim 2.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee et al. (US 2002/0074877 A1) and Verbrugge et al. '041, relevant to an injection molding process; Damsky et al. '524, relevant to magnetic segments with a flat interior surface; Shiga et al. '206, Shiga et al. '276, Reznik et al. '119, and Tang et al., relevant to mounting magnetic segments on the interior of a cylindrical back ring; Schaefer '802 and Miura et al. '461, relevant to the use of an expandable fixture to place magnetic segments on the interior of a cylindrical back ring; Sibata et al. and '228, Nishiyama et al. '153, relevant to magnetic

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segments mounted on a rotor shaft; Fisher et al. '330, Horng et al. '551, Sickie et al. '114, and Dohogne '872, relevant to encasing a rotor with a cylindrical ring.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Christopher T Schatz** whose telephone number is **571-272-1456**. The examiner can normally be reached on 8:00-5:30, Monday -Thursday, 8:00-4:30 Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CTS


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